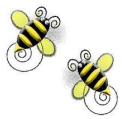
Issue No. 40, April 2014

In*FLOW*mation

Westford Water Department Newsletter



Inside This Issue:

Sustainable Water Management Initiative (SWMI)

The Massachusetts Department of Environmental Protection (MassDEP) recently issued draft Water Management Act (WMA) regulations that will impact many public water suppliers like the Westford Water Department. These proposed regulations are the result of the Sustainable Water Management Initiative (or SWMI) and will be incorporated into existing WMA regulations affecting future water withdrawal permits. SWMI was created in 2010 by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEAA) with the support of other Massachusetts agencies in an effort to create a state-wide water policy that balances ecological needs with economic growth and development.

Although we strongly agree that our water resources need to be protected and sustainable, we believe that these proposed regulations fall short of this goal and instead have the potential to become a substantial impediment to the economic health and long term growth of Westford.

As a public water supplier the Westford Water Department has a vested interest in keeping our drinking water source healthy and sustainable. However, we believe that the proposed regulations place too much emphasis on water withdrawal while failing to take into account other more significant factors such as impervious surface and water quality—both of which can greatly affect the local ecology.

We believe that protection of our natural environment is crucial to preserving our water resources. However, we feel the approach taken by the proposed regulations is lacking in several respects: it fails to address all factors affecting water resource management, has great potential to be very expensive, will create uncertainty over Westford's long term planning and development, introduces additional complex regulation into the permitting process, is not sufficiently supported by scientific evidence, and has no means to measure success.

The proposed regulations will require a shift of our focus from maintaining reliable delivery of drinking water to completing expensive environmental improvement projects. Some of the Westford Water Department's distribution system is over 100 years old! Funds that should be spent on maintaining an aging infrastructure will have to be reallocated to mitigate environmental impacts of water withdrawal under the proposed regulations. Ironically, water customers may end up paying more for less water since we will also be required to enforce mandatory outdoor water bans during the warmer months. Even more troubling, there is no way to effectively measure success of mitigation projects implemented to improve river and stream health.

Accordingly, we believe the supporting science of the SWMI framework is not sufficiently compelling to warrant the increased regulation and resulting economic costs to Westford. The Water Department is actively researching the potential effects on our future WMA permit, and plans on providing MassDEP with feedback regarding the proposed regulations during the public comment period. For more information and any updates, visit the Water Department website at www.westfordma.gov/water.

Stage I Voluntary Water Use Restrictions will go into effect on May 1 and run through October 31. During this time we ask that customers follow the odd/even day watering schedule and only water before 9 am or after 6 pm. Odd/even means odd-numbered addresses may water on odd-numbered days, and even-numbered addresses on even-numbered days.

New Technology

In an effort to continually improve performance, the Westford Water Department is currently conducting a MassDEP-approved Demonstration Test on new chlorinator technology (the PowerPro® 3150 Accu-Tab® Chlorination System above). If the test is successful, this continuous-feed system offers improved reliability and reduced maintenance costs over the older system. Another benefit is more consistent water quality throughout the distribution system.

Fixing a leak

A water main leak at one of our storage tanks was discovered during a routine inspection. The leak was successfully repaired by installing a new coupling (blue piece on left of pipe pictured below).

Consumer Confidence Report

The Water Department provides our customers with a direct link to an electronic copy of the CCR on the Water Department website. **Visiting the following website address will take you to the current CCR:**

http://www.westfordma.gov/ccr

The CCR contains important information about the source and quality of your drinking water, and is well worth the time to review. Since electronic delivery will become our primary method for providing the annual CCR it's important to note that:

- **The Westford Water Department no longer mails out paper copies of the CCR unless requested.**
- **If you have previously requested a paper copy then one will automatically be sent to you each year (there is no need to make additional requests).**
- **Please call at 978-399-2457 (or send email to mwarren@westfordma.gov) if you would like a paper copy delivered to your home or business.**

In addition, paper copies of the CCR will still be available at the Water Department, Town Hall and other municipal and community buildings.

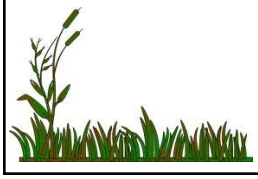
Healthy Lakes and Ponds 101

Please join the Westford's Healthy Lakes & Ponds Collaborative and Health Department on Wednesday evening May 7th, 2014 from 7-9 PM at the Nabnasset Lake Country Club (47 Oak Hill Road, Westford) for an informative session focusing on how to keep our lakes & ponds healthy through education, prevention, and action (registration required, info below).

In attendance and speaking will be Tom Flannery, an Aquatic Ecologist from the Massachusetts Department of Conservation and Recreation (DCR) who will discussing the importance of monitoring for the presence of exotic invasive aquatic plants, as well as steps to develop a removal plan if infestations are found to be present.

Also speaking will be Michael Celona, Chief of the Water Toxics unit of the Bureau of Environmental Health's Environmental Toxicology Program for the Massachusetts Department of Public Health (DPH). His topics will include Harmful Algae Blooms (HAG), cyanobacteria, and their health effects on people and pets.

Registration information (name, telephone number, and email address) is required and may be provided to the Westford Health Department by either of the following methods:



- Continued on page 3

Manganese in Drinking Water

Manganese is a common naturally-occurring mineral found in rocks, soil, groundwater, and surface water. Not only is manganese naturally found in most foods, it is also an essential trace nutrient in our diets necessary for proper metabolism, immune system function, digestion, bone strength, and as a cofactor in many enzymes. Generally, the principal source of manganese is from food, but drinking water with elevated manganese concentrations can contribute to an increased overall intake of the mineral.

Westford's groundwater contains varying levels of manganese. The Water Department's most recent groundwater testing for manganese (May of 2013) identified manganese levels ranging from non-detected to 1.6 milligrams per liter (mg/L). However, the Water Department utilizes a greensand filtration process that removes most manganese, and result of samples recently collected of finished water from the Forge Village and Nutting Road water treatment plants were non-detected for the Nutting Road plant and 0.002 mg/L for the Forge Village plant. In 2013, the Forge and Nutting treatment plants removed manganese at 98 and 96 percent efficiency respectively, resulting in removal of approximately 1.4 tons of manganese from our drinking water!

A quick discussion of Primary and Secondary Contaminants may be helpful. The United States Environmental Protection Agency (USEPA) differentiates between drinking water contaminants that can present a public health threat (Primary Contaminants) and contaminants that pose cosmetic or aesthetic issues (Secondary Contaminants). Accordingly, the USEPA sets Maximum Contaminant Levels (MCLs) for Primary Contaminants that are enforceable standards designed to protect public health, whereas Secondary Maximum Contaminant Levels (SMCLs) for Secondary Contaminants are non-enforceable guidelines regulating contaminants that present cosmetic or aesthetic effects in drinking water.

Currently, the USEPA and Massachusetts Department of Environmental Protection (MassDEP) list manganese as a Secondary Contaminant with a SMCL of 0.05 mg/L based on aesthetic concerns. Water containing elevated manganese levels can be discolored (dark, cloudy water), have an unpleasant taste, and stain fixtures.

However, recent studies have suggested that public health risks may exist from the ingestion of elevated levels of manganese. At higher levels manganese can produce neurological effects. Several recent limited studies of children exposed to elevated levels of manganese in drinking water suggest associations with behavioral and neurological effects. In addition, infants may have more difficulty processing manganese than older children and adults due to incompletely developed gastrointestinal tracts and other important metabolic organ systems.

Consequently, the MassDEP created a public outreach initiative to raise awareness regarding manganese in public drinking water. In addition the USEPA and MassDEP have established public health advisory levels for manganese in drinking water. Over a lifetime, the USEPA recommends that people drink water with manganese levels less than 0.3 mg/L, and over the short term, recommends that people limit their consumption of water with manganese levels over 1.0 mg/L over concerns regarding possible neurological effects. In addition, children up to 1 year of age should not be given water with a manganese concentration over 0.3 mg/L, nor should formula for infants be made with that water for longer than 10 days.

The MassDEP has also implemented required manganese testing for Public Water Suppliers in Massachusetts. As noted above, the Westford Water Department already tests for manganese, and will increase sampling frequency based on the new MassDEP requirements. For private well owners, the MassDEP recommends that a baseline sample be collected to determine the concentration in your well water. Thereafter, the well owner should follow the "Private Wells – Testing Parameters and Frequency Guidelines" found on the MassDEP website.

It's important to note that the SMCL is much lower than the public health advisory levels so you would be more likely to have manganese-related taste and/or color issues with your water before reaching the public health advisory levels. For more information regarding manganese in drinking water visit the Water Department website at www.westfordma.gov/water. Click on the "Education & Outreach" tab and then click on "Manganese in Drinking Water".

Healthy Lakes and Ponds 101—continued from page 2

- Email Laurie Lessard, Health Department's Administrative Assistant at LLESSARD@WESTFORDMA.GOV
- Telephone the Health Department directly at (978) 692-5509

By being proactive and monitoring your lake or pond you are taking a key role in ensuring the protection of your water body and its associated water resources for the future!

2014 Rain Barrel Sale

The Westford Water Department is pleased to once again partnering with The Great American Rain Barrel Company to provide a town rain barrel program. Rain barrels can be purchased on line. Visit the Great American Rain Barrel Company website at https://www.greatamericanrainbarrel.com and click on "Shop Community Programs" and click on "Westford" (this link is also available through the Water Department website at www.westfordma.gov/water). The deadline for purchasing rain barrels is June 18th at 5:00 pm, and pick-up will be on Wednesday June 26 from 4:00-6:00 pm at the Water Department.

Rain barrels are a great way to conserve water and have a ready supply of temperate water for gardens. The attractive barrels offered in the sale are 100% recycled, come in 3 environmentally compatible colors, 40% of retail price, are heavy-duty, and will last indefinitely.

Homeowners can easily connect the barrels to their downspouts and significantly offset their watering needs. In this region there is typically 16" of rain from May 1st – September 30th. For every inch of rainfall a 1000 square foot surface can collect 620 gallons of water, that means that over the course of the extended summer months an average roof of 2400 square feet could see more than 20,000 gallons of fresh rainwater passing over its surface from May through September. That is a pretty significant source of water that homeowners could be tapping into for free. Just keeping a small 10' x 10' garden irrigated during the summer months can mean using up to 1700 gallons of water.

Water Main Flushing Program

As part of our ongoing maintenance program, Westford Water Department is currently completing a comprehensive flushing of the water mains, in the northern, Graniteville, and Nabnasset sections of Town. We are anticipating **completion on June 13, 2014. Flushing will be completed between the hours of 8:00 AM and 3:00 PM**. This schedule is **subject to change** as weather conditions and length of flushing times may vary. Please check the website for updates (www.westfordma.gov/water).

Periodic flushing is performed to maintain water quality throughout the distribution system. This program involves opening fire hydrants and flushing valves to create increased water flows which dislodge and clean out naturally occurring sedimentation in the pipelines.

Minor flooding of streets, periods of low pressure and/or periods you may be without water could occur. Discolored water may result from the flushing so we recommend that you fill bottles with water for use during this time. If you experience colored water after the scheduled completion time, please run the cold water for 5 to 10 minutes to clear your service line. If your water does not clear or if you have concerns regarding this flushing please call the Water Department at 978-692-5529.

Please avoid washing clothes during the dates and times above. Westford Water Department reassures customers the water is safe to drink and any discoloration should clear up after the water is run a few minutes.

Left: Flushing at Farmers Way using our truck-mounted flushing box

Lead in Drinking Water

If present, elevated levels of lead in water can cause serious health problems, especially for pregnant women and young children.

Most lead found in drinking water primarily comes from materials and components associated with customer service lines or home plumbing. This is because at one time plumbing, fixtures and solder/flux contained varying levels of lead, and even lead service connections and pipe joints were used. In 1986 the Safe Drinking Water Act (SDWA) prohibited the use of certain items that were not considered lead-free, and in 1996 prohibited the sale of items that were not considered lead-free.

The Reduction of Lead in Drinking Water Act (Lead Reduction Act) was signed into law by President Barack Obama in January of 2011. This Act changed the definition of "lead free" from a maximum of 8.0 percent to 0.25 percent (for flux and solder, the new definition of "lead-free" is not containing more than 0.2% lead). The Lead Reduction Act took effect on January 4, 2014, and requires new pipes, fittings, plumbing fittings, and fixtures to meet the new definition of "lead free". Keep in mind that the lead-free requirements only apply to potable water supplies, and items used for non-potable uses (such as manufacturing or industrial processing, irrigation, etc.) are exempt from these requirements.

The Lead Reduction Act also applies to any household fixture (say a kitchen faucet) that will be used for human consumption (i.e. potable water). Any such faucet or fixture for sale after January 4, 2014 must meet the new definition of "lead-free". This also applies to items such as hot water heaters and any other item that is integrated into the plumbing system. By contrast, a stand alone appliance such as a coffee maker which is not plumbed does not fall under the Lead Reduction Act. However, if the coffee maker were plumbed into the public water supply then it would fall under the requirements of the Lead Reduction Act.

Even with a concerted effort to reduce the amount of lead in use, some customer plumbing—especially in older homes - may contain leaded fixtures, piping, flux, or solder. Accordingly, the Westford Water Department has a corrosion control program in place to help prevent the leaching of lead from these items into the water. This is accomplished by adding basic sodium hydroxide to raise the pH of the water to above 7.0 (remember your high school chemistry?) in order to reduce water corrosivity which in turn reduces lead levels in the water. In addition, we perform periodic distribution system sampling to verify that the corrosion control program is working properly. The results from the sampling program are reported in the annual Consumer Confidence Report.

A simple way to reduce possible exposure to lead is to run your water for 30 seconds to 2 minutes before drinking or cooking if it has been sitting for several hours (e.g. first thing in the morning). This will flush out any lead that has leached into your water. Hot water from the tap should never be used for cooking. If you are still concerned about lead levels in your drinking water you may want to have your water tested at a state-certified laboratory.

Private Well Corner

The Westford Water Department services roughly 75% of the town. The remaining residents rely on private drinking water wells. For questions regarding private wells—including when you should have your well tested—contact Darren MacCaughey, Director of Environmental Services, Westford Health Dept.: 978-692-5509 or at dmaccaughey@westfordma.gov. **Private wells may never be connected to the public water system!**

Fire Hydrants

Fire hydrants need to be visible and accessible year round, and they can become just as easily obscured by vegetation as with snow. While the Water Department is responsible for maintaining fire hydrant accessibility, we could use your help not only during the winter but all year round. If you have a hydrant on or near your property – and you are able, try to keep it from being overgrown. Also, please do not arrange plantings too close to the hydrant. Remember – they need to be accessible (at least 3 feet of clearance) and easy to spot during an emergency. The house you save may be your own!

Where am I?

Westford Water Department
IN*FLOW*MATION
April 2014
60 Forge Village Road
Westford, MA 01886

Presorted Standard
US Postage Paid
Westford, MA 01886
Permit No. 12

Visit Our Website!
www.westfordma.gov/water

Postal Patron

Westford, MA 01886

Hours of Operation:

7am to 4pm Monday-Friday
(except Holidays)

How to Reach Us

Main Phone Line	(978) 692-5529
Superintendent	(978) 399-2455
Water Operations Manager	(978) 399-2456
Business Manager	(978) 399-2453
Environmental Compliance Manager	(978)399-2457
Billing and Property Transfers	(978) 692-5529
Accounts Payable	(978) 692-5529

Visit our website:
www.westfordma.gov/water

After Hours

In the event of a water emergency outside of the work day, call the Police Department at 978-692-2161. The police dispatcher will contact our on-call personnel for quick response.

Quick Stats for 2013:

- Gallons treated: 502 million gallons
- Gallons Residential Water Used: 369 million gallons
- Maximum Daily Finished Water Consumption: 7/20/13—3.0 MG
- Residential per capita daily usage: 64 gallons per resident/day (down from 68 gallons in 2012)

The Westford Stream Team needs volunteers!

The Stream team is a made up of dedicated citizens who have been monitoring the water quality of Westford's streams and brooks since 2005. If you would like to volunteer visit the Stream Team page under the Conservation Commission website at www.westfordma.gov/conservation and click on Special Interest Groups on the left to get to the Stream Team page.